

Sleep problems increase risk for cardiovascular disease, diabetes and obesity, study shows

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(Medical Xpress) -- People who suffer from sleep disturbances are at major risk for obesity, diabetes, and coronary artery disease, according to new research from the Perelman School of Medicine at the University of Pennsylvania. For the first time in such a large and diverse sample, analyzing the data of over 130,000 people, the new research also indicates that general sleep disturbance (difficulty falling asleep, staying asleep, and/or sleeping too much) may play a role in the development of cardiovascular and metabolic disorders. The study is published online ahead of print in the *Journal of Sleep Research*.

“Previous studies have demonstrated that those who get less [sleep](#) are more likely to also be obese, have [diabetes](#) or cardiovascular disease, and are more likely to die sooner, but this new analysis has revealed that other [sleep problems](#), such as difficulty falling asleep, staying asleep, or even too much sleep, are also associated with cardiovascular and metabolic health issues,” said Michael A. Grandner, PhD, research associate at the Center for Sleep and Circadian Neurobiology at Penn and lead author of the study.

The researchers examined associations between [sleep disturbances](#) and other health conditions, focusing on perceived sleep quality, rather than just sleep duration. After adjusting for demographic, socioeconomic and health risk factors, patients with sleep disturbances at least three nights per week on average were 35 percent more likely to be obese, 54 percent

more likely to have diabetes, 98 percent more likely to have [coronary artery disease](#), 80 percent more likely to have had a heart attack, and 102 percent more likely to have had a stroke.

Grandner and colleagues analyzed data from the 2009 Behavioral Risk Factor Surveillance System (BRFSS) of 138,201 patients. The BRFSS is an annual, state-based, random digit-dialed telephone interview survey of adults aged 18 years and older from all over the US, conducted by the Centers for Disease Control and Prevention. It is the world's largest telephone survey, designed to monitor health-related behaviors in the general population.

“This study is one of the largest ever to link sleep problems with important cardiovascular and metabolic diseases. It joins other studies that show that sleep is an important part of health, just like diet and physical activity,” said Philip R. Gehrman, PhD, CBSM, assistant professor of psychology in the Department of Psychiatry, clinical director of the Penn [Medicine](#) Behavioral Sleep Medicine Program, and senior study author. “We all know what it feels like to not sleep well sometimes. And now we can clearly show that those who have chronic sleep problems are also much more likely to have chronic health problems as well. As a society, we need to make healthy sleep a priority”

The researchers say that future studies are needed to show whether sleep problems predict the new onset of cardiovascular and metabolic disease, and whether treatment of sleep problems improves long term health and longevity.

More information: onlinelibrary.wiley.com/doi/10.1111/00990.x/abstract

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